What is Claimed is:

1. A channel equalizer in a digital TV receiver, comprising:

a frequency domain equalizer for equalizing a received signal to remove a distorted component from the received signal;

a noise removing part for removing noise from the equalized signal;

a time domain equalizer for equalizing a signal from the frequency domain equalizer or the noise removing part to remove a distorted component from the signal; and

an error providing part for estimating an error required for renewal of a coefficient at the time domain equalizer by using a signal from the time domain equalizer or the noise removing part, and feeding the error back to the time domain equalizer.

2. The channel equalizer as claimed in claim 1, wherein the frequency domain equalizer carries out the steps of;

converting a received time domain signal into a frequency domain signal,

equalizing the frequency domain signal, and

converting the equalized frequency domain signal into a time domain signal.

3. The channel equalizer as claimed in claim 1, wherein the frequency domain equalizer carries out the steps of;

estimating a channel impulse response from a received time domain signal,

converting the estimated channel impulse response and the time domain signal into frequency domain signals,

making coefficient renewal by using the converted frequency domain signal to correct distortion of the frequency domain signal, and

converting the distortion corrected frequency domain signal into a time domain signal.

4. The channel equalizer as claimed in claim 1, wherein the noise removing part is connected to one of output terminals of the frequency domain equalizer, and the time domain equalizer.

5. The channel equalizer as claimed in claim 1, wherein time domain equalizer is connected to one of outputs of the frequency domain equalizer and the noise removing part.

6. The channel equalizer as claimed in claim 1, wherein the time domain equalizer makes coefficient renewal by using one of signals from the frequency domain equalizer and the noise removing part and an error fed back from the error providing part, to compensate the signal for a signal distortion caused by fast fading.

7. The channel equalizer as claimed in claim 1, wherein the time domain equalizer makes coefficient renewal faster than a field synchronization period.

8. The channel equalizer as claimed in claim 1, wherein the time domain equalizer is of an LMS (Least Mean Square), a RLS (Recursive Least Square), or a ZF (Zero Forcing) type.

9. A channel equalizer in a digital TV receiver, comprising:

a frequency domain equalizer for equalizing a received signal to remove a distorted component from the received signal;

a noise removing part connected to an output terminal of the frequency domain equalizer for removing noise from a signal equalized at the frequency domain equalizer;

a time domain equalizer connected to an output terminal of the noise removing part for equalizing a signal from the noise removing part to remove a distorted component from the signal; and

an error providing part for estimating an error required for renewal of a coefficient at the time domain equalizer by using a signal from the time domain equalizer, and feeding the error back to the time domain equalizer.

10. The channel equalizer as claimed in claim 9, wherein the frequency domain equalizer carries out the steps of;

estimating a channel impulse response from a received time domain signal,

converting the estimated channel impulse response and the time domain signal into frequency domain signals,

making coefficient renewal by using the converted frequency domain signal to correct distortion of the frequency domain signal, and

converting the distortion corrected frequency domain signal into a time domain signal.

11. The channel equalizer as claimed in claim 9, wherein the time domain equalizer makes coefficient renewal by using a signal from the noise removing part and an error fed back from the error providing part, to compensate the signal for a signal distortion caused by fast fading.

12. The channel equalizer as claimed in claim 9, wherein the time domain equalizer

makes coefficient renewal faster than a field synchronization period.

13. The channel equalizer as claimed in claim 9, wherein the time domain equalizer is of an LMS (Least Mean Square), a RLS (Recursive Least Square), or a ZF (Zero Forcing) type.

14. A channel equalizer in a digital TV receiver, comprising:

a frequency domain equalizer for equalizing a received signal to remove a distorted component from the received signal;

a time domain equalizer connected to an output terminal of the frequency domain equalizer for equalizing a signal from the frequency domain equalizer to remove a distorted component from the signal;

a noise removing part connected to an output terminal of the time domain equalizer for removing noise from a signal equalized at the time domain equalizer; and

an error providing part for estimating an error required for renewal of a coefficient at the time domain equalizer by using a signal from the noise removing part, and feeding the error back to the time domain equalizer.

15. The channel equalizer as claimed in claim 14, wherein the time domain equalizer makes coefficient renewal by using a signal from the frequency domain equalizer and an error fed back from the error providing part, to compensate the signal for a signal distortion caused by fast fading.

16. The channel equalizer as claimed in claim 14, wherein the time domain equalizer

makes coefficient renewal faster than a field synchronization period.

17. The channel equalizer as claimed in claim 14, wherein the time domain equalizer is of an LMS (Least Mean Square), a RLS (Recursive Least Square), or a ZF (Zero Forcing) type.

18. A channel equalizer in a digital TV receiver, comprising:

a frequency domain equalizer for equalizing a received signal to remove a distorted component from the received signal;

a time domain equalizer connected to an output terminal of the frequency domain equalizer for equalizing a signal from the frequency domain equalizer to remove a distorted component from the signal;

a noise removing part connected to an output terminal of the time domain equalizer for removing noise from a signal equalized at the time domain equalizer; and

an error providing part for estimating an error required for renewal of a coefficient at the time domain equalizer by using a signal from the time domain equalizer, and feeding the error back to the time domain equalizer.

19. The channel equalizer as claimed in claim 18, wherein the time domain equalizer makes coefficient renewal by using a signal from the frequency domain equalizer and an error fed back from the error providing part, to compensate the signal for a signal distortion caused by fast fading.

20. The channel equalizer as claimed in claim 18, wherein the time domain equalizer

is of an LMS (Least Mean Square), a RLS (Recursive Least Square), or a ZF (Zero Forcing) type.